VIRGINIA DEPARTMENT OF HEALTH - OFFICE OF EMERGENCY MEDICAL SERVICES BASIC LIFE SUPPORT - PRACTICAL SKILL TEACHING SHEET

SPINAL IMMOBILIZATION - LYING SPINEBOARD

SCENE SIZE-UP

Assess: Need for body substance isolation, Scene safety, Trauma (MOI) or Medical (NOI) nature, and

Number of Patients

ASSESSMENT

Perform initial assessment and appropriate rapid, focused or detailed assessment as indicated.

EMERGENCY MEDICAL CARE

Establish and maintain manual in-line immobilization until the patient is fully secured to the spineboard with head immobilized.

Assess pulse, motor and sensation in all extremities and record findings.

Assess the cervical region and neck; apply proper size cervical immobilization collar.

Position the spineboard, move the patient onto the spineboard by logrolling.

- •One EMT-Basic must maintain manual in-line immobilization of the head and spine.
- •EMT-Basic at the head directs the movement of the patient.
- One to three other EMT-Basics control the movement of the rest of the body.
- Quickly assess posterior body if not already done in focused history or physical exam.
- Position the long spineboard under the patient.
- •Place patient onto the spineboard at the command of the EMT-Basic holding manual in-line immobilization using a proper slide, lift, log roll or scoop stretcher so as to limit movement to a minimum.

Pad voids between the patient and the spineboard.

Immobilize torso and legs to the spineboard.

Immobilize the patient's head to the spineboard ONLY after the torso has been secured.

Reassess pulses, motor and sensation and record findings.

Move spineboard and patient to stretcher.

Secure spineboard and patient to the stretcher.

BASIC LIFE SUPPORT - PRACTICAL SKILL TEACHING SHEET

SPINAL IMMOBILIZATION - SHORT SPINEBOARD

SCENE SIZE-UP

Assess: Need for body substance isolation, Scene safety, Trauma (MOI) or Medical (NOI) nature, and

Number of Patients

ASSESSMENT

Perform initial assessment and appropriate rapid, focused or detailed assessment as indicated.

EMERGENCY MEDICAL CARE

Establish and maintain manual in-line immobilization until the patient is fully secured to the short spineboard with head immobilized.

Assess pulse, motor and sensation in all extremities and record findings.

Assess the neck and cervical region; apply proper size cervical immobilization collar.

Position short spineboard behind the patient by:

- Lean patient forward while supporting torso weight.
- Slide short spineboard behind patient and center along spinal region of body.
- Lean patient back against spineboard while supporting torso weight.

Secure the short spineboard to the patient's torso and legs (as appropriate).

Evaluate torso and groin straps and adjust as necessary without excessive movement of the patient.

Evaluate and pad behind the patient's head as necessary to maintain neutral in-line immobilization.

Secure the patient's head to the device ONLY after torso is securely immobilized.

Manual immobilization of the head may be released ONLY after the short spineboard is securely applied.

Rotate or lift the patient to the long spineboard.

Secure short spineboard and patient to long spineboard.

Reassess pulses, motor and sensation and record findings.

Move long spineboard and patient to stretcher.

Secure long spineboard and patient to the stretcher.

EXCEPTION

If the patient must be moved urgently because of their injuries (due to need to gain access to other patient(s) or hazards at the scene) patient should then be lowered directly onto a long spineboard and removed with manual in-line immobilization provided.

BASIC LIFE SUPPORT - PRACTICAL SKILL TEACHING SHEET

SPINAL IMMOBILIZATION - STANDING SPINEBOARD

SCENE SIZE-UP

Assess: Need for body substance isolation, Scene safety, Trauma (MOI) or Medical (NOI) nature, and Number of Patients

ASSESSMENT

Perform initial assessment and appropriate rapid, focused or detailed assessment as indicated.

EMERGENCY MEDICAL CARE

Establish and maintain in-line immobilization; maintain until patient is properly secured to spineboard with head immobilized.

Assess pulse, motor and sensation in all extremities and record findings.

Assess the cervical region and neck; apply proper size cervical immobilization collar.

Position spineboard behind the patient.

Move the patient onto the spineboard by:

- 1. One rescuer on each side of the patient, one additional rescuer at the foot facing the patient.
- 2. The rescuers on both sides of the patient reach with the hand closest to the patient under the arm to grasp the spineboard, and use the hand farthest from the patient to secure the spineboard.
- 3. Once the position is assured, they place the leg closest to the spineboard behind spineboard and the patient to prevent them from sliding, and the spineboard is brought into a level horizontal position.

Pad voids between the patient and the spineboard.

Immobilize torso to the spineboard.

Immobilize the patient's head to the spineboard.

Secure legs to the spineboard.

Reassess pulses, motor and sensation and record findings.

Move spineboard and patient to stretcher.

Secure long spineboard and patient to the stretcher.

BASIC LIFE SUPPORT - PRACTICAL SKILL TEACHING SHEET

SPLINTING

SCENE SIZE-UP

Assess: Need for body substance isolation, Scene safety, Trauma(MOI) or Medical(NOI) nature, and

Number of Patients

ASSESSMENT

Perform initial assessment and appropriate rapid, focused or detailed assessment as indicated.

1. EMERGENCY MEDICAL CARE - LONG BONE SPLINTING

Apply manual immobilization to the injured extremity.

Assess pulse, motor and sensory function and record findings.

If there is a severe deformity or the distal extremity is cyanotic or lacks pulses, align with gentle traction before splinting.

Select appropriate type and size of splint.

Apply splint immobilizing the bone and joint above and below the injury.

Secure entire injured extremity.

Immobilize hand/foot in position of function.

Reassess pulse, motor, and sensation after application of splint and record findings.

NOTE: Dress all open wounds and pad void areas prior to final application of splint.

2. EMERGENCY MEDICAL CARE - SPLINTING A JOINT INJURY

Apply manual immobilization.

Assess pulse, motor and sensory function and record findings.

Align joint with gentle traction if distal extremity is cyanotic or lacks pulses and no resistance is met.

Select appropriate type and size of splinting materials.

Immobilize site of injury.

Immobilize bone above and below the site of injury.

Reassess pulse, motor, and sensation after application of splint and record findings.

NOTE: Dress all open wounds and pad void areas prior to final application of splint.

3. EMERGENCY MEDICAL CARE - TRACTION SPLINTING

Indications:

For use in a painful, swollen, deformed mid-thigh with no joint or lower leg injury.

Contraindications:

- Injury is close to the knee.
- Injury to the knee exists.
- Injury to the hip.
- Injured pelvis.
- Partial amputation or avulsion with bone separation, distal limb is connected only by marginal tissue. Traction would risk separation.
- Lower leg or ankle injury.

Procedure:

Assess pulse, motor, and sensation distal to the injury and record findings.

Perform manual immobilization of the injured leg.

Apply manual traction - required when using a bi-polar splint.

Prepare/adjust splint to proper length.

Position splint under injured leg.

Apply proximal securing device (ischial strap).

Apply distal securing strap (ankle hitch) and connect to mechanical traction.*

Apply mechanical traction.

Position/secure support straps avoiding knee and injury site.

Revaluate proximal/distal securing devices.

Manual traction may be released.

Reassess pulses, motor, sensation distal to the injury after application of the splint and record findings.

Secure torso to long spineboard to immobilize hip.

Secure splint to long spineboard to prevent movement of splint.

Move long spineboard and patient to stretcher.

Secure long spineboard and patient to stretcher.

* Distal securing device (ankle hitch) may be applied to ankle prior to applying manual traction.

NOTE: Dress all open wounds and pad void areas prior to final application of splint.

VIRGINIA DEPARTMENT OF HEALTH - OFFICE OF EMERGENCY MEDICAL SERVICES BASIC LIFE SUPPORT - PRACTICAL SKILL TEACHING SHEET

AIRWAY MANAGEMENT

SCENE SIZE-UP

Assess: Need for body substance isolation, Scene safety, Trauma(MOI) or Medical(NOI) nature, and

Number of Patients

ASSESSMENT

Perform initial assessment and apply interventions as indicated and necessary.

1. EMERGENCY MEDICAL CARE - SUCTIONING

Turn on suction unit.

Attach a catheter or rigid suction tip to tubing.

- •Use rigid catheter when suctioning mouth of an infant or child.
- If required to suction nasal passages, use a bulb suction or French catheter with low to medium suction pressure level.

Insert catheter into the oral cavity without suction, if possible. (Unit off or thumb control uncovered.)

Measure depth from the corner of the patient's lips to the bottom of the earlobe or angle of the jaw.

Insert only to the back of the mouth to pre-measured depth for soft catheter or keep tip of rigid tip within view.

Apply suction. Move catheter tip side to side collecting substances.

Suction for no more than 15 seconds at a time in breathing patient, otherwise repeat suctioning until clear airway is achieved.

- In infants and children, shorter time and lower suction pressure should be used.
- If the patient has secretions or emesis that cannot be cleared quickly and easily, the patient should be log rolled and the oropharynx should be suctioned until the airway is cleared.
- If patient produces frothy secretions as rapidly as suctioning can remove, suction for 15 seconds, artificially ventilate for two minutes, then suction for 15 seconds, and continue in that manner. Consult medical direction for this situation.

If necessary, rinse the catheter and tubing with water to prevent obstruction of the tubing from dried materials between suctioning attempts.

2. EMERGENCY MEDICAL CARE - OROPHARYNGEAL AIRWAYS

May be used to assist in maintaining an open airway on unresponsive patients without a gag reflex.

Patients with a gag reflex may vomit.

Select proper size: Measure from the corner of the patient's lips to the bottom of the earlobe or angle of the jaw.

Open the patient's mouth using accepted technique (Jaw Thrust or Head-Tilt/Chin-Lift).

In adults, insert the airway upside down, with the tip facing toward the roof of the patient's mouth.

Advance the airway until resistance is encountered. Rotate the airway 180 degrees so that it comes to rest with the flange on the patient's teeth.

An alternate method of inserting an oral airway is to insert it right side up, while using a tongue depressor to press the tongue down and forward. This is the preferred method for airway insertion in an infant or child.

3. EMERGENCY MEDICAL CARE - NASOPHARYNGEAL AIRWAYS

Nasal airways are less likely to stimulate vomiting and may be used on patients who are responsive but need assistance keeping the tongue from obstructing the airway.

Select the proper size: Measure from the tip of the nose to the tip of the patient's ear. Also consider diameter of the airway in the nostril.

Lubricate the airway with a water soluble lubricant.

Insert airway straight towards the back of the head (Do not angle upwards). Bevel should always face toward the base of the nostril or toward the septum.

If the airway cannot be inserted into one nostril, try the other nostril.

CAUTION: Nasal airways should not be used if blood or other fluids are draining from the nose.

BASIC LIFE SUPPORT - PRACTICAL SKILL TEACHING SHEET

OXYGEN DELIVERY

SCENE SIZE-UP

Assess: Need for body substance isolation, Scene safety, Trauma(MOI) or Medical(NOI) nature, and

Number of Patients

ASSESSMENT

Perform initial assessment and apply interventions as indicated and necessary.

EMERGENCY MEDICAL CARE - OXYGEN DELIVERY

Quickly open, then shut, the tank valve to remove any debris or foreign matter. Inspect flowmeter for damage and presence of tank seal ("O" ring).

Attach regulator-flowmeter to tank.

Open tank valve until gauge registers tank content level.

Attach oxygen delivery device to flowmeter.

Adjust flowmeter to desired setting. (Mask - 10 to 15 lpm, nasal cannula 1 to 6 lpm)

Apply oxygen delivery device to patient.

When complete, remove device from patient, then turn off tank valve and release all pressure from the regulator system.

NOTE: In general usage regulator is left attached to oxygen tank for rapid oxygen administration. Some steps above may only be required when replacing tank or if a leak is detected.

BASIC LIFE SUPPORT - PRACTICAL SKILL TEACHING SHEET

VENTILATION

SCENE SIZE-UP

Assess: Need for body substance isolation, Scene safety, Trauma(MOI) or Medical(NOI) nature, and Number of Patients

ASSESSMENT

Perform initial assessment and apply interventions as indicated and necessary.

1. EMERGENCY MEDICAL CARE - BAG-VALVE MASK (NO TRAUMA)

After opening airway, select correct size mask and bag/valve unit (adult, infant or child) with supplemental oxygen supply attached, if possible.

Grasp mask and position thumbs over top half of mask, index and middle fingers over bottom half.

Place apex of mask over bridge of nose, then lower mask over mouth and upper chin. If mask has large round cuff surrounding ventilation port, center port over mouth.

Use ring and little fingers to bring jaw up to mask.

Connect bag to mask if not already done.

Have assistant squeeze bag with two hands until chest rises.

If alone, form a "C" around the ventilation port with thumb and index fingers; use middle, ring and little fingers under jaw to maintain chin lift and complete seal.

Ventilate a minimum of every 5 seconds for adult and every 3 seconds for children and infants.

If the chest does not rise and fall, re-evaluate airway position and technique.

- If chest does not rise, reposition head.
- If air is escaping from under mask, reposition fingers and mask.
- Check for obstruction
- If chest still does not rise and fall, use alternative method of artificial ventilation, e.g., pocket mask, manually triggered device.

If necessary, consider use of adjuncts, e.g., oral or nasal airway.

2. EMERGENCY MEDICAL CARE - BAG-VALVE MASK (TRAUMA)

After opening airway, select correct size mask and bag/valve unit (adult, infant or child) with supplemental oxygen supply attached, if possible.

Immobilize head and neck, e.g., have an assistant hold head manually or use your knees to prevent movement.

Grasp mask and position thumbs over top half of mask, index and middle fingers over bottom half.

Place apex of mask over bridge of nose, then lower mask over mouth and upper chin. If mask has large round cuff surrounding a ventilation port, center port over mouth.

Use ring and little fingers to bring jaw up to mask without tilting head or neck.

Connect bag to mask if not already done.

Have assistant squeeze bag with two hands until chest rises.

Repeat ventilations every 5 seconds for adults or every 3 seconds for children and infants, continuing to hold jaw up without moving head or neck.

If the chest does not rise and fall, re-evaluate.

- If chest does not rise, reposition head.
- If air is escaping from under mask, reposition fingers and mask.
- Check for obstruction
- If chest still does not rise and fall, use alternative method of artificial ventilation, e.g., pocket mask, manually triggered device.

If necessary, consider use of adjuncts, e.g., oral or nasal airway.

BASIC LIFE SUPPORT - PRACTICAL SKILL TEACHING SHEET

ADMINISTRATION OF NITROGLYCERIN

SCENE SIZE-UP

Assess: Need for body substance isolation, Scene safety, Trauma(MOI) or Medical(NOI) nature, and

Number of Patients

ASSESSMENT

Perform initial assessment and focused or detailed assessment as indicated.

Obtain history of present illness: O-P-Q-R-S-T

Obtain S-A-M-P-L-E history Obtain base line vital signs

EMERGENCY MEDICAL CARE - NITROGLYCERIN ADMINISTRATION

Actions:

- Relaxes blood vessels
- Decreases workload of heart

Side Effects:

- Hypotension
- Headache
- Pulse rate changes

Indications: (must meet the following three criteria)

- Emergency medical care for the treatment of the patient exhibiting signs and symptoms of chest pain.
- Medication is prescribed for this patient by a physician.
- Medical direction authorizes use for this patient.

Contraindications:

- Hypotension or blood pressure below 100 mmHg systolic
- Head injury
- Infants and children
- Patient has already met maximum prescribed dose prior to EMT-Basic arrival

Dosage:

•One dose, repeat in 3-5 minutes if no relief, BP >100, and authorized by medical direction up to a maximum of three doses.

Administration:

Obtain order from medical direction either on-line or off-line (Per local protocol).

Perform focused assessment for cardiac patient and record findings.

Assess blood pressure - B/P must be above 100 mmHg systolic to administer medication.

Assure right medication, right patient, right route, patient alert.

Check expiration date of nitroglycerin.

Question patient on last dose administration, effects, and assures understanding of route of administration.

Ask patient to lift tongue and place tablet or spray dose under tongue (while wearing gloves) or have patient place tablet or spray under tongue.

Have patient keep mouth closed with tablet under tongue (without swallowing) until dissolved and absorbed.

Recheck blood pressure within 2 minutes.

Record activity and time.

Perform reassessment:

- Monitor blood pressure
- •Ask patient about effect on pain relief
- Seek medical direction before re-administering
- Record reassessments

BASIC LIFE SUPPORT - PRACTICAL SKILL TEACHING SHEET

ADMINISTRATION OF ORAL GLUCOSE

SCENE SIZE-UP

Assess: Need for body substance isolation, Scene safety, Trauma(MOI) or Medical(NOI) nature, and

Number of Patients

ASSESSMENT

Perform initial assessment and focused or detailed assessment as indicated.

Obtain history of present illness: O-P-Q-R-S-T

Obtain S-A-M-P-L-E history Obtain base line vital signs

EMERGENCY MEDICAL CARE - ORAL GLUCOSE ADMINISTRATION

Actions:

Increases blood sugar

Side Effects:

- None when given properly
- May be aspirated by the patient without a gag reflex

Indications:

Patients with altered mental status with a known history of diabetes controlled by medication.

Contraindications:

- Unresponsive
- Unable to swallow

Dosage:

One tube

Administration:

Obtain order from medical direction either on-line or off-line (Per local protocol).

Assure signs and symptoms of altered mental status with a known history of diabetes.

Assure patient is conscious and can swallow and protect the airway.

Administer glucose:

- Between cheek and gum
- Place on tongue depressor between cheek and gum

Perform on-going assessment and record findings:

• If patient loses consciousness or seizes, remove tongue depressor from mouth.

BASIC LIFE SUPPORT - PRACTICAL SKILL TEACHING SHEET

ADMINISTRATION OF EPINEPHRINE

SCENE SIZE-UP

Assess: Need for body substance isolation, Scene safety, Trauma(MOI) or Medical(NOI) nature, and

Number of Patients

ASSESSMENT

Perform initial assessment and focused or detailed assessment as indicated.

Obtain history of present illness: O-P-Q-R-S-T

Obtain S-A-M-P-L-E history Obtain base line vital signs

EMERGENCY MEDICAL CARE - EPINEPHRINE ADMINISTRATION (AUTO-INJECTOR)

Actions:

Dilates the bronchioles
 Constricts blood vessels

Side Effects:

Increases heart ratePallorHeadacheNausea

• Dizziness • Vomiting

Chest painExcitability, anxiousness

Indications: (must meet the following three criteria)

- Assessment reveals patient exhibiting the assessment findings of an allergic reaction.
- Medication is prescribed for this patient by a physician.
- Medical direction authorizes use for this patient.

Contraindications:

• No contraindications when used in a life-threatening situation.

Standard Pre-filled Dosages are:

- •Adult one adult auto-injector (0.3 mg)
- Infant and child one infant/child auto injector (0.15 mg)

Administration:

Obtain order from medical direction either on-line or off-line (Per local protocol).

Perform focused assessment for allergic reaction patient and record findings.

Obtain patient's prescribed auto injector.

Ensure medication is not discolored (If liquid may not be visible inside all types of devices).

Remove safety cap from the auto-injector.

Place tip of auto-injector against the thigh and press firmly until the injector activates.

Hold injector firmly against thigh for a minimum of 10 seconds to allow for full dose delivery.

Record activity and time.

Dispose of injector in biohazard container.

Perform reassessment and record findings:

- Transport
- Continue focused assessment of airway, breathing and circulatory status.

If patient condition continues to worsen:

- Decreasing mental status
- Increasing breathing difficulty
- Decreasing blood pressure
- •Obtain medical direction
 - Additional dose of epinephrine
 - Treat for shock
 - Prepare to initiate Basic Cardiac Life support measures (CPR/AED)

If patient condition improves, provide supportive care:

- Oxygen
- Treat for shock (hypoperfusion)

BASIC LIFE SUPPORT - PRACTICAL SKILL TEACHING SHEET ADMINISTRATION OF PRESCRIBED INHALER

SCENE SIZE-UP

Assess: Need for body substance isolation, Scene safety, Trauma(MOI) or Medical(NOI) nature, and

Number of Patients

ASSESSMENT

Perform initial assessment and focused or detailed assessment as indicated.

Obtain history of present illness: O-P-Q-R-S-T

Obtain S-A-M-P-L-E history Obtain base line vital signs

EMERGENCY MEDICAL CARE - INHALER ADMINISTRATION

Actions:

• Dilates bronchioles reducing airway resistance (Beta-agonist bronchodilator)

Side Effects:

- Increased pulse rate
- Tremors
- Nervousness

Indications: (must meet all of the following criteria)

- Exhibits signs and symptoms of respiratory emergency
- Handheld inhaler is prescribed for this patient by a physician
- Specific authorization by medical direction.

Contraindications:

- Inability of patient to use device due to reduced level of consciousness.
- •Inhaler is not prescribed for this patient.
- No permission from medical direction.
- Patient has already met maximum prescribed dose prior to EMT-Basic arrival.

Dosage:

• Number of inhalations based upon medical direction order or physician order based upon consultation with the patient.

Administration:

Obtain order from medical direction either on-line or off-line (Per local protocol).

Assure right medication, right patient, right route, patient alert enough to use inhaler.

Check expiration date of the inhaler.

Check to see if the patient has already taken any doses.

Assure the inhaler is at room temperature or warmer.

Shake the inhaler vigorously several times.

Remove oxygen adjunct from patient.

Have the patient exhale deeply.

Have the patient put lips around the opening of the inhaler.

Have the patient depress the handheld inhaler as he begins to inhale deeply.

Instruct the patient to breathe a few times and repeat second dose per medical direction.

If patient has a spacer device for use with his inhaler, it should be used. A spacer device is an attachment between the inhaler and patient that allows for more effective use of medication.

Record activity and time.

Perform reassessment and record findings:

- Gather vital signs and focused reassessment
- Patient may deteriorate and need positive pressure artificial ventilation.

Infant and child considerations:

- •Use of handheld inhalers is very common in children.
- Retractions are more commonly seen in children than adults.
- Cyanosis (blue-gray) is a late finding in children.
- Very frequently coughing may be present rather than wheezing in some children.
- Emergency care with usage of handheld inhalers is same if the indications for usage of inhalers are met by the ill child.

BASIC LIFE SUPPORT - PRACTICAL SKILL TEACHING SHEET ADMINISTRATION OF ACTIVATED CHARCOAL

SCENE SIZE-UP

Assess: Need for Body Substance Isolation, Scene Safety, Trauma (MOI) or Medical (NOI) nature,

and Number of Patients

ASSESSMENT

Perform initial assessment and focused or detailed assessment as indicated.

Obtain history of present illness: O-P-Q-R-S-T

Obtain S-A-M-P-L-E history Obtain base line vital signs

EMERGENCY MEDICAL CARE - ACTIVATED CHARCOAL ADMINISTRATION

Actions:

• Binds with ingested toxins to prevent absorption

Side Effects:

- Vomiting
- Black stools

Indications:

Recent ingestion of susceptible poison

Contraindications:

- Altered mental status
- Ingestion of acids or alkalis
- Unable to swallow

Dosage:

- 1g/kg
 - Usual Adult dose: 25 50 grams
 - Usual Infant/Child dose: 12.5 25 grams

Administration:

- 1. Obtain order from medical direction either on-line or off-line (Per local protocol).
- 2. Assure patient alert enough to take medication.
- 3. Check expiration date of the activated charcoal.
- 4. Shake the medication vigorously until well mixed
- 5. Have patient drink activated charcoal.
 - To assist in getting patient to drink suspension use of a straw and container that does not allow patient to see suspension.
 - If patient takes a long time to drink the suspension, it will settle and need to be shaken or stirred again.

- 6. Record activity and time.
- 7. Perform reassessment and record findings:Gather vital signs and focused reassessment
- 8. Monitor patient
 - Patient may vomit and aspirate suspension.

Infant and Child considerations:

•Insure activated charcoal suspension does not contain sorbitol.